```
RRRRRRRRRRRR      UUU           UUU  NNN           NNN    000000000    FFFFFFFFFFFFFFF    FFFFFFFFFFFFFFFF
RRRRRRRRRRRR      UUU           UUU  NNN           NNN    000000000    FFFFFFFFFFFFFFF    FFFFFFFFFFFFFFFF
RRRRRRRRRRRR      UUU           UUU  NNN           NNN    000000000    FFFFFFFFFFFFFFF    FFFFFFFFFFFFFFFF
RRR        RRR    UUU           UUU  NNN           NNN  000       000  FFF                FFF
RRR        RRR    UUU           UUU  NNN           NNN  000       000  FFF                FFF
RRR        RRR    UUU           UUU  NNN           NNN  000       000  FFF                FFF
RRR        RRR    UUU           UUU  NNNNNN        NNN  000       000  FFF                FFF
RRR        RRR    UUU           UUU  NNNNNN        NNN  000       000  FFF                FFF
RRR        RRR    UUU           UUU  NNNNNN        NNN  000       000  FFF                FFF
RRRRRRRRRRRR      UUU           UUU  NNN   NNN     NNN  000       000  FFFFFFFFFFF        FFFFFFFFFFF
RRRRRRRRRRRR      UUU           UUU  NNN   NNN     NNN  000       000  FFFFFFFFFFF        FFFFFFFFFFF
RRRRRRRRRRRR      UUU           UUU  NNN   NNN     NNN  000       000  FFFFFFFFFFF        FFFFFFFFFFF
RRR   RRR         UUU           UUU  NNN     NNNNNN     000       000  FFF                FFF
RRR    RRR        UUU           UUU  NNN     NNNNNN     000       000  FFF                FFF
RRR     RRR       UUU           UUU  NNN       NNN      000       000  FFF                FFF
RRR       RRR     UUU           UUU  NNN           NNN  000       000  FFF                FFF
RRR        RRR    UUU           UUU  NNN           NNN  000       000  FFF                FFF
RRR         RRR   UUU           UUU  NNN           NNN  000       000  FFF                FFF
RRR          RRR  UUUUUUUUUUUUUUUUU  NNN           NNN    000000000    FFF                FFF
RRR           RRR UUUUUUUUUUUUUUUUU  NNN           NNN    000000000    FFF                FFF
RRR           RRR UUUUUUUUUUUUUUUUU  NNN           NNN    000000000    FFF                FFF
```

FILEID**SCL

```
SSSSSSSS    CCCCCCCC  LL
SSSSSSSS    CCCCCCCC  LL
SS            CC      LL
SS            CC      LL
SS            CC      LL
SS            CC      LL
  SSSSSS      CC      LL
  SSSSSS      CC      LL
      SS      CC      LL
      SS      CC      LL
      SS      CC      LL                ....
      SS      CC      LL                ::::
SSSSSSSS    CCCCCCCC  LLLLLLLLLL        ::::
SSSSSSSS    CCCCCCCC  LLLLLLLLLL        ....

LL          IIIIII      SSSSSSSS
LL          IIIIII      SSSSSSSS
LL            II      SS
LL            II      SS
LL            II      SS
LL            II      SS
LL            II        SSSSSS
LL            II        SSSSSS
LL            II              SS
LL            II              SS
LL            II              SS
LL            II              SS
LLLLLLLLLL  IIIIII      SSSSSSSS
LLLLLLLLLL  IIIIII      SSSSSSSS
```

SETD
V04-

L 3

Shift current word in MRA to the left   16-Sep-1984 01:46:12   VAX-11 Bliss-32 V4.0-742   Page 1
                                               14-Sep-1984 13:08:04   DISK$VMSMASTER:[RUNOFF.SRC]SCL.BLI;1   (1)

```
   1   0001  0  %TITLE 'Shift current word in MRA to the Left'
   2   0002  0  MODULE SCL (
   3   0003  0                  IDENT = 'V04-000'
   4 P 0004  0  %BLISS32[,
   5 P 0005  0          ADDRESSING_MODE(EXTERNAL=LONG_RELATIVE,NONEXTERNAL=LONG_RELATIVE)
   6   0006  0          ]
   7   0007  0                  ) =
   8   0008  1  BEGIN
   9   0009  1
  10   0010  1  !*******************************************************************
  11   0011  1  !*                                                                 *
  12   0012  1  !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                        *
  13   0013  1  !*  DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.         *
  14   0014  1  !*  ALL RIGHTS RESERVED.                                           *
  15   0015  1  !*                                                                 *
  16   0016  1  !*  THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED *
  17   0017  1  !*  ONLY IN ACCORDANCE WITH THE TERMS OF SUCH LICENSE AND WITH THE *
  18   0018  1  !*  INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR ANY OTHER *
  19   0019  1  !*  COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY *
  20   0020  1  !*  OTHER PERSON. NO TITLE TO AND OWNERSHIP OF THE SOFTWARE IS HEREBY *
  21   0021  1  !*  TRANSFERRED.                                                   *
  22   0022  1  !*                                                                 *
  23   0023  1  !*  THE INFORMATION IN THIS SOFTWARE IS SUBJECT TO CHANGE WITHOUT NOTICE *
  24   0024  1  !*  AND SHOULD NOT BE CONSTRUED AS A COMMITMENT BY DIGITAL EQUIPMENT *
  25   0025  1  !*  CORPORATION.                                                   *
  26   0026  1  !*                                                                 *
  27   0027  1  !*  DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE OR RELIABILITY OF ITS *
  28   0028  1  !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.        *
  29   0029  1  !*                                                                 *
  30   0030  1  !*                                                                 *
  31   0031  1  !*******************************************************************
  32   0032  1
  33   0033  1  !++
  34   0034  1  ! FACILITY:        DSR (Digital Standard RUNOFF) / DSRPLUS
  35   0035  1
  36   0036  1  ! ABSTRACT: Rearrange the MRA by moving the current word to the left.
  37   0037  1
  38   0038  1
  39   0039  1  ! ENVIRONMENT: Transportable
  40   0040  1
  41   0041  1  ! AUTHOR: R.W.Friday     CREATION DATE: May, 1978
  42   0042  1
```

SCL
V04-000

Shift current word in MRA to the left
Revision History

M 3
16-Sep-1984 01:46:12
14-Sep-1984 13:08:04

VAX-11 Bliss-32 V4.0-742
DISK$VMSMASTER:[RUNOFF.SRC]SCL.BLI;1

Page 2
(2)

```
  44    0043  1 %SBTTL 'Revision History'
  45    0044  1 !
  46    0045  1 ! MODIFIED BY:
  47    0046  1 !
  48    0047  1 !      002      REM00002      Ray Marshall    07-Mar-1983
  49    0048  1 !               Global edit of all modules. Updated module names, idents,
  50    0049  1 !               copyright dates. Changed require files to BLISS library.
  51    0050  1 !
  52    0051  1 !--
```

SCL
V04-000

Shift current word in MRA to the left
Module Level Declarations

N 3
16-Sep-1984 01:46:12
14-Sep-1984 13:08:04

VAX-11 Bliss-32 V4.0-742
DISK$VMSMASTER:[RUNOFF.SRC]SCL.BLI;1   Page 3 (3)

```
  54      0052  1  %SBTTL 'Module Level Declarations'
  55      0053  1  !
  56      0054  1  ! TABLE OF CONTENTS:
  57      0055  1  !
  58      0056  1  !
  59      0057  1  ! INCLUDE FILES:
  60      0058  1  !
  61      0059  1
  62      0060  1  LIBRARY 'NXPORT:XPORT';              ! XPORT Library
  63      0061  1  REQUIRE 'REQ:RNODEF';                ! RUNOFF variant definitions
  64      0192  1
  65    U 0193  1  %IF DSRPLUS %THEN
  66    U 0194  1  LIBRARY 'REQ:DPLLIB';                ! DSRPLUS BLISS Library
  67      0195  1  %ELSE
  68      0196  1  LIBRARY 'REQ:DSRLIB';                ! DSR BLISS Library
  69      0197  1  %FI
  70      0198  1
  71      0199  1  !
  72      0200  1  ! MACROS:
  73      0201  1  !
  74      0202  1  !
  75      0203  1  ! EQUATED SYMBOLS:
  76      0204  1  !
  77      0205  1  !
  78      0206  1  ! OWN STORAGE:
  79      0207  1  !
  80      0208  1  !
  81      0209  1  ! EXTERNAL REFERENCES:
  82      0210  1  !
  83      0211  1
  84      0212  1  EXTERNAL
  85      0213  1      MRA : REF FIXED STRING,
  86      0214  1      SCA : SCA_DEFINITION,
  87      0215  1      TSF : TSF_DEFINITION;
  88      0216  1
  89      0217  1  EXTERNAL ROUTINE
  90      0218  1      GCSKIP;
  91      0219  1
```

```
 93    0220  1  %SBTTL 'SCL --'
 94    0221  1  GLOBAL ROUTINE scl : NOVALUE =
 95    0222  1
 96    0223  1  !++
 97    0224  1  ! FUNCTIONAL DESCRIPTION:
 98    0225  1  !
 99    0226  1  ! See ABSTRACT for a sufficient explanation.
100    0227  1  !
101    0228  1  ! FORMAL PARAMETERS:      None
102    0229  1  !
103    0230  1  ! IMPLICIT INPUTS:        None
104    0231  1  !
105    0232  1  ! IMPLICIT OUTPUTS:       None
106    0233  1  !
107    0234  1  ! ROUTINE VALUE:
108    0235  1  ! COMPLETION CODES:       None
109    0236  1  !
110    0237  1  ! SIDE EFFECTS:           None
111    0238  1  !
112    0239  1  !--
113    0240  1
114    0241  2      BEGIN
115    0242  2
116    0243  2      LOCAL
117    0244  2          ptr,
118    0245  2          ptr_copy;
119    0246  2
120    0247  2      fs_init (mra);                              !reset pointers and counters back to start
121    0248  2      tsf_int_hl = 0;                             !Nothing in TSF yet.
122    0249  2      tsf_ext_hl = 0;                             !...
123    0250  2      tsf_int_vl = 0;                             !...
124    0251  2
125    0252  2      IF   .sca_wrd_int_l EQL 0  THEN             ! If no shift require, then
126    0253  2          RETURN;                                 !    exit.
127    0254  2
128    0255  2      gcskip (.sca_spacing - 1);                  !Generate intermediate code for skipping.
129    0256  2
130    0257  2      INCR i FROM 1 TO .sca_lm DO
131    0258  2          (fs_wchar (mra, %C' '));                !Fill out left margin with spaces.
132    0259  2
133    0260  2      tsf_int_hl = .tsf_int_hl + .sca_lm;
134    0261  2      tsf_ext_hl = .sca_lm;
135    0262  2      ptr = .fs_next (mra);                       !The current word will start here eventually.
136    0263  2      ptr_copy = .fs_next (mra);
137    0264  2
138    0265  2      INCR i FROM 1 TO (.sca_wrd_int_l) DO
139    0266  3          BEGIN                                   !move the current word a character at a time.
140    0267  3          ! NOTE: This could have been coded using fs_wchar, and forgetting
141    0268  3          !       about using ptr_copy and hold_char; however, that uncovered a
142    0269  3          !       compiler bug.  Also, this generates more efficient object code.
143    0270  3
144    0271  3          LOCAL
145    0272  3              hold_char;
146    0273  3
147    0274  3          hold_char = CH$RCHAR_A (sca_wrd_pntr);
148    0275  3          CH$WCHAR_A (.hold_char, ptr_copy);
149    0276  3          fs_length (mra) = .fs_length (mra) + 1;
```

SCL
V04-000

Shift current word in MRA to the left
SCL --

C   4
16-Sep-1984 01:46:12   VAX-11 Bliss-32 V4.0-742   Page   5
14-Sep-1984 13:08:04   DISK$VMSMASTER:[RUNOFF.SRC]SCL.BLI;1   (4)

```
;  150      0277  2              END;
;  151      0278  2
;  152      0279  2              fs_next (mra) = .ptr_copy;
;  153      0280  2              sca_wrd_pntr = .ptr;              !re-establish pointer to SCA_WRD.
;  154      0281  2              RETURN;
;  155      0282  1      END;                                     !End of SCL

                                        .TITLE  SCL Shift current word in MRA to the left
                                        .IDENT  \V04-000\

                                        .EXTRN  MRA, SCA, TSF, GCSKIP

                                        .PSECT  $CODE$,NOWRT,2

                          C3FC 00000    .ENTRY  SCL, Save R2,R3,R4,R5,R6,R7,R8,R9   ; 0221
        59 00000000G  EF  9E 00002      MOVAB   TSF, R9
        58 00000000G  EF  9E 00009      MOVAB   MRA, R8
        57 00000000G  EF  9E 00010      MOVAB   SCA+248, R7
        50           68  D0 00017       MOVL    MRA, R0                            ; 0247
                  0C A0  D4 0001A       CLRL    12(R0)
               60 10 A0  9E 0001D       MOVAB   16(R0), (R0)
        04 A0        60  D0 00021       MOVL    (R0), 4(R0)
        50           69  D0 00025       MOVL    TSF, R0
                     60  7C 00028       CLRQ    (R0)
               18 A0     D4 0002A       CLRL    24(R0)                            ; 0248
               04 A7     D5 0002D       TSTL    SCA+252                           ; 0250
               5A        13 00030       BEQL    5$                                ; 0252
     7E        84 B7     C3 00032       SUBL3   #1, @SCA+124, -(SP)               ; 0255
        00000000G EF     01 FB 00037    CALLS   #1, GCSKIP
        53      FF7C D7  D0 0003E       MOVL    @SCA+116, R3                      ; 0257
        50           68  D0 00043       MOVL    MRA, R0                           ; 0258
        52      04 A0    9E 00046       MOVAB   4(R0), R2
        51           68  D0 0004A       MOVL    MRA, R1
        50           50  D4 0004D       CLRL    I
                     09  11 0004F       BRB     2$
     00 B2      20 90 00051 1$:         MOVB    #32, @0(R2)
               62        D6 00055       INCL    (R2)
            0C A1        D6 00057       INCL    12(R1)
     F3        50        53 F3 0005A 2$: AOBLEQ R3, I, 1$                         ; 0257
               50        69  D0 0005E       MOVL    TSF, R0                       ; 0258
               60        53  C0 00061       ADDL2   R3, (R0)                      ; 0260
        04 A0  53        D0 00064       MOVL    R3, 4(R0)                         ; 0261
               56        62  D0 00068       MOVL    (R2), PTR                     ; 0262
               50        62  D0 0006B       MOVL    (R2), PTR_COPY                ; 0263
        04 A7  54        D0 0006E       MOVL    SCA+252, R4                       ; 0265
               53        D4 00072       CLRL    I
            0C           11 00074       BRB     4$
     55 00        B7 9A 00076 3$:       MOVZBL  @SCA+248, HOLD_CHAR              ; 0274
               67        D6 0007A       INCL    SCA+248
     80        55        90 0007C       MOVB    HOLD_CHAR, (PTR_COPY)+            ; 0275
            0C A1        D6 0007F       INCL    12(R7)                            ; 0276
     F0        53     54 F3 00082 4$:   AOBLEQ  R4, I, 3$                         ; 0265
               62        50  D0 00086   MOVL    PTR_COPY, (R2)                    ; 0279
               67        56  D0 00089   MOVL    PTR, SCA+248                      ; 0280
                     04 0008C 5$:       RET                                       ; 0282
```

; Routine Size: 141 bytes,   Routine Base: $CODE$ + 0000

```
;  156          0283  1
;  157          0284  1 END                                              !End of module
;  158          0285  0 ELUDOM
```

;   PSECT SUMMARY

;   Name   Bytes   Attributes

; $CODE$ 141   NOVEC,NOWRT, RD , EXE,NOSHR, LCL, REL, CON,NOPIC,ALIGN(2)

;   Library Statistics

```
;                                      -------- Symbols --------      Pages        Processing
;          File                         Total   Loaded   Percent     Mapped       Time

;  _$255$DUA28:[SYSLIB]XPORT.L32;1         590       0         0        252        00:00.1
;  _$255$DUA28:[RUNOFF.SRC]DSRLIB.L32;1   1248      20         1         86        00:00.2
```


;   COMMAND QUALIFIERS

;   BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:SCL/OBJ=OBJ$:SCL MSRC$:SCL/UPDATE=(ENH$:SCL)

```
; Size:             141 code + 0 data bytes
; Run Time:         00:04.9
; Elapsed Time:     00:17.6
; Lines/CPU Min:    3482
; Lexemes/CPU-Min:  16460
; Memory Used:  57 pages
; Compilation Complete
```

STD LIS

SUBST LIS

SETDAT LIS

STC LIS

TITLES LIS

STYLE LIS

SCANT LIS

TOPPAG LIS

STKFRM LIS

SKIPL LIS

SUBPAG LIS

SCL LIS

SKPSEP LIS

STHL LIS

SETTIM LIS